

**COMMITTEE ON SCIENCE
U.S. HOUSE OF REPRESENTATIVES**

HEARING CHARTER

H.R. 798, the Methamphetamine Remediation Research Act of 2005

**Thursday, March 3, 2005
10:00 a.m.
2318 Rayburn House Office Building**

1. Purpose

On Thursday, March 3, 2005, the House Science Committee will hold a hearing on H.R. 798, the *Methamphetamine Remediation Research Act of 2005*, which would establish a Federal research program and a program to develop voluntary guidelines to help states clean up and deal with the environmental consequences of methamphetamine laboratories.

Methamphetamine, also known as “meth,” is a highly addictive, powerful nervous system stimulant. Meth abuse is a growing problem throughout the United States, and the availability of meth is particularly hard to control because the drug can be cheaply and easily manufactured in small clandestine laboratories, which are located primarily in motels, rental apartments and other residential settings. While the greatest and most obvious impacts of meth are on those who use the drug, meth labs may also harm those who come in contact with them, even after a lab is abandoned. The toxic brew involved in manufacturing meth can harm innocent parties, including first responders (such as firefighters who may become involved if a lab catches on fire – a not unusual occurrence because the chemicals used to make meth are volatile), future inhabitants of a former lab site (because chemicals may contaminate a site), and others through the environment (because chemicals may be poured down drains or otherwise enter the environment). According to the National Alliance for Model State Drug Laws, a Federally funded, nonprofit organization, environmental cleanup and remediation of residential meth labs is a top issue for many state and local governments. (Cleanup refers to the initial removal of visible chemicals and equipment from a meth lab; remediation refers to dealing with residual contamination.)

On February 15, 2005, Ranking Member Bart Gordon, Congressman Ken Calvert and Chairman Sherwood Boehlert introduced H.R. 798, the *Methamphetamine Remediation Research Act of 2005*. A summary of the bill is included in this Charter.

Witnesses

Mr. Scott Burns is the Deputy Director for State and Local Affairs at the White House Office of National Drug Control Policy (ONDCP). Prior to his appointment, Mr. Burns served as County Attorney in Iron City, Utah for 16 years.

Ms. Sherry Green is the Executive Director for the National Alliance for Model State Drug Laws (the Alliance) in Alexandria, VA.

Dr. John Martyny is a Certified Industrial Hygienist and an Associate Professor at the National Jewish Medical and Research Center (NJMRC) in Denver, CO. Dr. Martyny is the Principal Investigator on a project to determine the exposures to law enforcement, fire and hazardous materials officers investigating methamphetamine laboratories.

Mr. Henry Hamilton is the Assistant Commissioner for Public Protection at the New York State Department of Environmental Conservation.

Mr. Gary Howard is the Sheriff of Tioga County in upstate New York.

Dr. Robert Bell is the President of Tennessee Technological University in Cookeville, TN.

2. Overarching Questions

The hearing will address the following overarching questions:

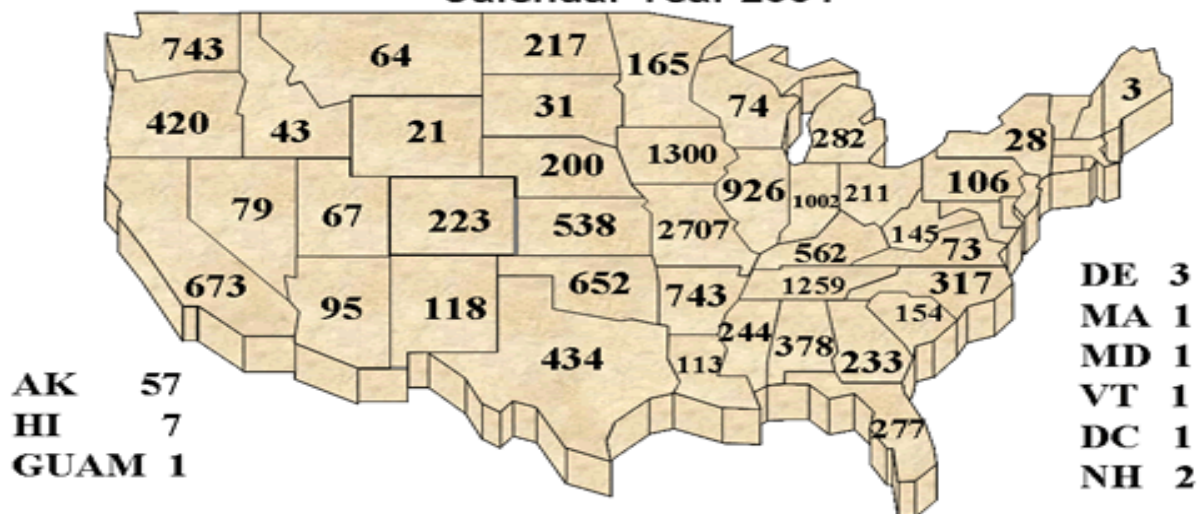
- What are the environmental and the human health risks associated with former methamphetamine laboratories? When is the site of a former methamphetamine laboratory, be it a private home, an apartment or a hotel, considered “clean”?
- What are the obstacles to the effective cleanup and remediation of former methamphetamine laboratories? What policies or regulations currently guide the cleanup and remediation of these sites?
- Is there a role for the Federal government in facilitating the cleanup and remediation of former meth labs? Is that role adequately addressed in H.R. 798?

3. Background

Methamphetamine, also known as “meth,” “speed,” or “crank,” is a powerful stimulant that initially increases wakefulness and physical activity but can also induce symptoms ranging from extreme nervousness and hyperactivity to convulsions and irreversible brain damage. Chronic use increases drug tolerance and deepens dependence, requiring users to take higher doses more frequently. This frequently results in amphetamine psychosis, a condition characterized by extreme paranoia and bizarre, violent behavior – a key factor in the death of most meth addicts. Since the 1970s, Federal regulations have limited the legal uses of meth to the treatment of a handful of conditions. Use of meth without a prescription and the manufacture of meth without appropriate permission is illegal under Federal law.

The current meth abuse problem originated in California and the Southwest, where organized drug trafficking groups sold the drug. But the problem has spread considerably, with that spread facilitated by the proliferation of small labs that produce the drug for personal use and local distribution. In 1993, the Drug Enforcement Administration (DEA) estimated a total seizure of 218 meth labs. In 2003, federal, state and local law enforcement officers netted over 10,000 labs and, in 2004, almost 15,000 labs were seized. These small labs account for the majority of seizures, and they are present in every state in the U.S., taxing the resources of local law enforcement.

**Total of All Meth Clandestine Laboratory Incidents
Including Labs, Dumpsites, Chem/Glass/Equipment
Calendar Year 2004**



**Source: National Clandestine Laboratory Database
Total: 15,994 / 49 States Reporting
Dates: 01/01/04 to 12/31/04**

Of the 32 chemicals that can be used in varying combinations to make or "cook" meth, one-third are extremely toxic and many are also reactive, explosive, flammable, and corrosive. Nearly one in five labs is found because of fire or explosion, injuring or killing the individuals involved as well as the law enforcement or fire fighters who respond. During use and production, meth itself and other harmful chemicals are released into the air and deposited throughout the surrounding area. Inside, these chemicals collect on countertops and floors, and they are absorbed into furnishings, carpets and walls. In addition, for every pound of meth produced, approximately five to six pounds of toxic byproducts remain. This waste is frequently poured down drains or spilled onto the ground, potentially contaminating soil, surface water, groundwater, and septic systems.

Small meth labs can be set up nearly anywhere – fields, woods, cars – but roughly two-thirds of the labs are found in inhabited houses. A typical lab requires little in the way of materials, only glassware, hoses, a heat source and some old coffee filters. In addition, the ingredients used to manufacture meth are commercially available anywhere in the U.S. The main ingredient, ephedrine or pseudoephedrine, is a chemical that is present in many over-the-counter cold and asthma medications, and the other chemicals are available in gasoline, rubbing alcohol, pool-cleaning supplies, drain cleaners, fertilizer and matchbooks. Moreover, the process itself requires almost no technical knowledge, involving nothing more complicated than mixing and siphoning, and the recipe—as well as step-by-step instructions—is freely and easily available on the Internet.

The cleanup following the discovery of a meth lab can be an expensive and involved process. Cleanup is generally responsibility of state and local governments.

States and localities have different statutes and regulations relating to the cleanup and remediation of meth labs, but generally cleanup and remediation occur in distinct phases. The first phase is the initial cleanup of gross contamination, which includes the removal of illicit laboratory equipment, chemicals and obviously contaminated furnishings. Since meth labs are crime scenes, law enforcement is typically first to respond, securing evidence and overseeing phase one cleanup activities.

After a site has been secured and is no longer part of a criminal investigation, the second phase of the cleanup begins – the remediation of harder to identify residual contamination. At this phase, property owners are notified and responsibility passes to them, often with a recommendation to contact a contractor. There are no national guidelines or regulations on how to clean up a residential meth lab for reoccupation. States struggle to protect the public and to find an answer that is practical for property owners; their responses range from doing almost nothing to complete demolition. However, most remediation efforts involve one or more of the following measures: ventilation, encapsulation or sealing of interior surfaces, removal of drywall, decontamination of ventilation or wastewater systems, and removal of soil or treatment of contaminated groundwater.

Even where state and local regulations or ordinances exist, states and localities usually do little to enforce cleanup rules. Some public health officials try to force reluctant owners by threatening condemnation of the property. Cleanup is expensive; the cost to remediate a 1,500 square foot rambler can range from \$5,000 - \$15,000, and most insurance companies exclude “contamination” and “felony activities” from coverage for private homes and some commercial properties. Individuals buying or moving into a property that was previously a meth lab may have no way of knowing that their new residence was once a meth lab and the attendant risks.

Seven states have established by statute, regulation or guideline a risk-based decontamination standard specific to meth.¹ But there is a great deal of debate over what standard is appropriate. Should the standard be based on risk to human health (and, if so, what level of risk is appropriate) or be based on the feasibility of cleaning up a site, or some mix of the two? How should one determine the risk associated with a meth ingredient that might be around a typical household for legitimate purposes? The questions are further complicated by the lack of research on the long-term health effects of former meth labs. Much of the research that does exist on meth ingredients is based on occupational exposures that occur when meth’s precursor chemicals are used for legitimate industrial purposes. Those uses are unlikely to produce the short-term exposures to high concentrations of these chemicals that can occur in meth production. Little is also known about the consequences of long-term exposure to the traces of chemicals that individuals, including children, may receive from living in a former meth lab, although cases of lingering health effects from such exposures have been reported.

Most states have little to no funding to conduct research on meth cleanup. The National Alliance for Model State Drug Laws has pushed for a Federal program of research to validate sample collection methods, identify primary and persistent chemicals of concern, determine the most effective remediation techniques for particular surfaces (e.g., porous and nonporous), and help

¹ The seven states with the risk-based decontamination standard for meth are Alaska, Arizona, Arkansas, Colorado, Minnesota, Tennessee and Washington.

develop assessment and remediation guidance for states and localities based on short- and long-term health effects. A federal program could also aid in the development of field tests kits for meth and other hazardous chemicals – another pressing need.

4. Section-by-Section Description of H.R. 798

Section 1. Short title.

The Methamphetamine Remediation Research Act of 2005

Section 2. Findings.

Section 3. Voluntary Guidelines.

Requires the Assistant Administrator for Research and Development at the Environmental Protection Agency (EPA), in consultation with the National Institute of Standards and Technology (NIST), to establish, within one year, voluntary guidelines for the remediation of former methamphetamine labs, including guidelines for preliminary site assessments and the remediation of residual contaminants.

Requires that, in developing the guidelines, the Assistant Administrator consider relevant standards, guidelines and requirements in federal, state and local laws and regulations; the varying types and locations of former methamphetamine labs; and expected costs.

The voluntary guidelines are to be used to assist state and local governments. Requires the Assistant Administrator to work with state and local governments and other relevant nonfederal agencies and organizations, including through the conference required by section 5, to promote and encourage the appropriate adoption of the voluntary guidelines.

Requires the Assistant Administrator to periodically update the voluntary guidelines, in consultation with states and other interested parties, to incorporate research findings and other new knowledge.

Section 4. Research Program.

Requires the Assistant Administrator to establish a research program of research to support the development and revision of the voluntary guidelines in section 3. Requires research to:

- identify methamphetamine laboratory-related chemicals of concern,
- assess the types and levels of exposure to chemicals of concern that may present a significant risk of adverse biological effects,
- better address biological effects and minimize adverse human exposures,
- evaluate the performance of various methamphetamine laboratory cleanup and remediation techniques, and
- support other priorities identified by the Assistant Administrator in consultation with states and others.

Section 5. Technology Transfer Conference.

Requires the Assistant Administrator to convene within 90 days of the date of enactment, and every third year thereafter, a conference of state agencies and other individuals and organizations involved with the impacts of former methamphetamine laboratories. The conference should be a forum for the Assistant Administrator to provide information on the voluntary guidelines and the latest findings of the research program, as well as an opportunity for the nonfederal participants to provide information on their problems, needs and experiences with the voluntary guidelines.

Requires the Assistant Administrator within three months of each conference to submit a report to Congress that summarizes the proceedings of the conference, including any recommendations or concern raised and a description of how the Assistant Administrator intends to respond to them. Requires the report to be made widely available to the general public.

Section 6. Residual Effects Study.

Requires the Assistant Administrator to enter into an arrangement with the National Academy of Sciences within six months of the date of enactment to study the status and quality of research on the residual effects of methamphetamine laboratories. Requires the study to identify research gaps and recommend an agenda for the research program in section 4. Requires the study to focus on the need for research on the impact of methamphetamine laboratories on residents of buildings where labs are or were located, with particular emphasis on the biological effects on children and on first responders.

Section 7. Methamphetamine Detection Research and Development Program.

Requires the Director of NIST, in consultation with the Assistant Administrator, to support a research program to develop new methamphetamine detection technologies, with emphasis on field test kits and site detection and appropriate standard reference materials and validation procedures for methamphetamine detection testing.

Section 8. Savings Clause.

Provides that nothing in the Act shall be construed to change the regulatory authority of EPA.

Section 9. Authorization of Appropriations.

Authorizes \$3 million for each of fiscal years 2006 through 2009 for EPA. Authorizes \$1.5 million for each of fiscal years 2006 through 2009 for NIST.

5. Current Federal Response on Cleanup and Remediation

In October 2004, the White House Office of National Drug Control Policy (ONDCP), in cooperation with the Drug Enforcement Administration, the Department of Justice Criminal Division's Narcotic and Dangerous Drug Section, and various components of the Department of Health and Human Services, released *The National Synthetic Drugs Action Plan*. With respect to the cleanup and remediation of former meth labs, the plan calls on Federal agencies to:

- Ensure adequate funding for clandestine laboratory and dumpsite cleanups, including funding for sufficient personnel to support laboratory cleanups and hazardous waste disposal, so that cleanup costs are not a disincentive to lab investigations or takedowns. Federal officials, in collaboration with state agencies, should conduct a needs assessment to identify potential program improvements and make recommendations on specific support needed and funds required; and
- Disseminate and apply the latest guidelines for the cleanup of meth labs and, where necessary, coordinate environmental remediation by appropriate entities. These protocols for the adulteration and destruction of precursor and essential chemicals, glassware, and meth waste should be part of certification training.

EPA

EPA can use the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), better known as the Superfund, to respond to environmental and health threats, including those posed by meth labs. However, the human health and environmental threat posed by small labs seldom rises to the necessary level to trigger a Superfund cleanup. On the other hand, if a “superlab” produced a large amount of chemicals that were dumped into a river or onto public grounds, a Superfund response might be triggered. A few former meth labs have become Superfund sites.

In addition to EPA cleanup under Superfund, the Agency provides training for state and local responders, and it offers a wide range of technical and management courses designed to help responders identify and deal appropriately with hazardous substances.

Department of Justice: DEA and COPS

DEA is more frequently involved in the phase one cleanup of meth labs than is EPA, but the extent of involvement can vary by state. Typically, DEA is involved in the initial cleanup of large “superlabs” because they are often associated with large-scale drug trafficking operations. To aid in this effort, the DEA administers the Hazardous Waste Cleanup Program, to fund and contract for the cleanup of seized drug labs.

The DEA Cleanup program is funded through the Community Oriented Policing Services (COPS) program. The Hazardous Waste Cleanup Program received about \$20 million in FY04, the last year for which figures were available. In addition, in FY04 DEA spent about \$4 million on additional lab cleanups and almost \$2 million on grants to states to purchase lab cleanup equipment. Finally, DEA’s Office of Training conducts numerous training sessions to ensure the safe and efficient cleanup of meth lab hazardous waste.

6. Witness Questions

The invitation letters asked the witnesses to address the following questions in their testimony:

Questions for Mr. Burns:

- What is the extent of the methamphetamine problem, including what we know about who is using it, where it comes from and the impact on local communities, including the lasting health and environmental effects of former laboratories?
- How does the federal government support state and local agencies in the removal of hazardous waste and the remediation of former laboratories?
- What are the principle findings and recommendations in the *National Synthetic Drug Action Plan* with respect to the cleanup and remediation of former methamphetamine laboratories? Are the findings and recommendations adequately addressed in H.R. 798?

Questions for Ms. Green:

- What is the National Alliance for Model State Drug Laws? How does your organization work with states to develop model drug laws? And how did your organization get involved in issues related to the cleanup and remediation of former methamphetamine laboratories?
- What is the status of state law with respect to methamphetamine cleanup and remediation? How are methamphetamine laboratories currently cleaned and remediated? Who is performing these activities and what challenges do they face?
- Is there a need for federal guidance and research on the assessment, cleanup and remediation of residential methamphetamine labs? If so, are these needs adequately addressed in H.R. 798?

Questions for Dr. Martyny:

- How are harmful chemicals and residuals distributed during the manufacture of methamphetamine? What happens to these chemicals after production has ceased? And what do we know about the effectiveness of cleaning techniques?
- What are the principal findings of your research on the effects of harmful chemicals and residuals to first responders investigating residential methamphetamine laboratories? What are the health effects for children present within homes that are used to produce methamphetamine? And what are the health hazards associated with active and former methamphetamine laboratories, particularly over the long term?
- Where are the limitations of the current research on the health exposures to these residential laboratories? Are unmet research needs currently and adequately being addressed by nonfederal organizations and agencies? If not, what is the federal role in meeting these needs?

Questions for Mr. Hamilton:

- What agencies, federal, state or local, currently respond to a residential methamphetamine laboratory? How are these laboratories assessed and cleaned? What, if any, state laws or regulations guide this process? And what are the limitations of these state laws and regulations?
- How are the residual contaminants of these residential labs remediated? What happens if property owners are unable or unwilling to remediate these properties?

- What guidance or other assistance do you need in terms of chemicals involved, health hazards, and effective remediation strategies? Does the federal government have a role to play in these areas? If so, is it adequately addressed in H.R. 798?

Questions for Mr. Howard:

- When did New York first notice an emerging methamphetamine problem, both in terms of the number of users and the number of laboratories? What is the estimated scope of the problem today? And how has that affected your state, particularly in terms of law enforcement?
- What agencies, federal, state or local, currently respond to a residential methamphetamine laboratory? How are these laboratories assessed, cleaned and remediated? And what, if any, state laws or regulations guide this process?
- What precautions do you take when during the raid of a known meth lab? What guidance do you need in terms of chemicals involved, health hazards (both in terms of first responders and current and future residents), and effective remediation strategies? Does the federal government have a role to play in these areas? If so, is it adequately addressed in H.R. 798?

Questions for Dr. Bell:

- When did Tennessee first notice an emerging methamphetamine problem, both in terms of the number of users and the number of laboratories? What is the estimated scope of the problem today? And how has that affected your state?
- What agencies, federal, state or local, currently respond to a residential methamphetamine laboratory? How are these laboratories currently assessed, cleaned and remediated? What, if any, state laws or regulations guide this process? And what are the limitations of these assessment and remediation strategies?
- How has Tennessee Technological University collaborated with law enforcement and local hospitals on the detection and remediation of former methamphetamine labs? What research, guidance or tools is needed to address the environmental and health hazards of residential methamphetamine laboratories? Are these needs adequately addressed in H.R. 798?